



ISO 9001  
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**SIGMA**

Your Elevator Partner  
[www.sigmaelevators.com](http://www.sigmaelevators.com)

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# **SIGMA** MRL E1000

Your Elevator Partner... SIGMA

# Your Elevator Partner... **SIGMA**

Our dedication and passion to reach customer satisfaction always have been a driving force of our creative and innovative ideas.

As your elevator partner, upgrading our ideas in providing comfortable elevators to our customers, at the same time, devoting ourselves in protecting environment are our ultimate goal.

SIGMA MRL E1000 focuses on customers' comfort through improving its environmental performances.

## **High Performance**

Highly efficient external gearless traction machine with permanent magnet synchronous motor

## **Precise Control**

modular structure with real-time control, accurate provision and fast information transfer

## **Stabilized Door System**

Combination of VVVF door control and PM door leading to higher accuracy with minimal noise

## **Reliable Riding Protection**

94 beams of net-crossing light with densely weaved protection plane

Duty Load (kg)	250, 320, 450	550, 630, 800, 1000
Rated Speed (m/s)	0.5/1.0	1.0/1.5/1.75
Max. Rise (m)	30	60/75/90
Max. Group Control	4	
Machine Type	PM Gearless	
Drive	VVVF	



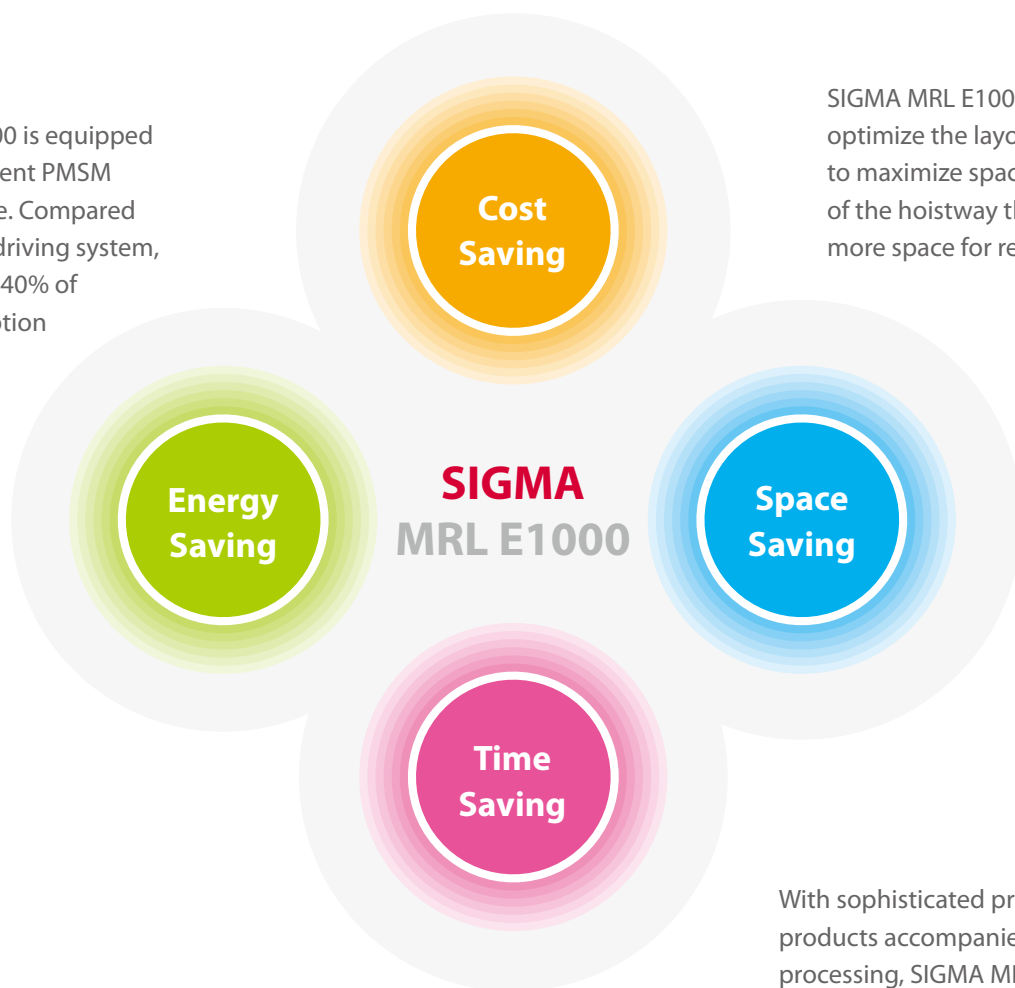
## **SIGMA** MRL E1000

In our modern world, people look for compact, practical but stylish objects. It is no exception for elevators too. In modern contemporary building, machine rooms for each elevator are becoming increasingly cumbersome. Construction requirements change and progress and we, SIGMA, keep our steps together with these changes by continuously improving our technologies and expose ourselves to new innovative challenges. SIGMA MRL E1000 is designed to supply compact and efficient system by employing machine that can be mounted within the hoistway, eliminating the need for a bulky machine room on the roof.

SIGMA MRL E1000 is designed to support overall operation efficiently, taking full account of the different needs of the production, installation and maintenance which lead to handsome cost saving

SIGMA MRL E1000 is equipped with highly efficient PMSM gearless machine. Compared with traditional driving system, it can save up to 40% of energy consumption

SIGMA MRL E1000 is designed to optimize the layout of hoistway to maximize space utilization of the hoistway thus providing more space for rental



With sophisticated pre-engineered products accompanied by standard processing, SIGMA MRL E1000 can save construction time which will bring a huge benefit to our customers

### **SIGMA MRL E1000**

focuses on customers' comfort through improving its environmental performance.



# Aesthetics

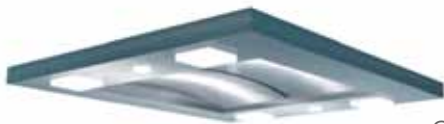
## | Ceiling



C-ES1



C-EL1



C-EL2

## | COP



CBM-EM1C

## | Indicator



VIL-EM1C

## | Etching Pattern



EST-002



EST-003



EST-004



EST-005



EST-006



EST-007



EST-008



EST-009



EST-010



EST-011



EST-012



EST-013



EST-014



EST-015

## | Hairline



## | Handrail



HR-04



HR-02

## | Colors



P-001  
Pearl



P-002  
Shallow Red



P-003  
Light Grey



P-004  
Emerald



P-005  
Light Green



P-006  
Grey

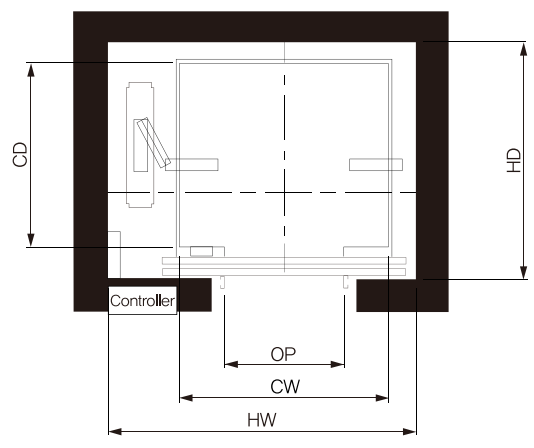
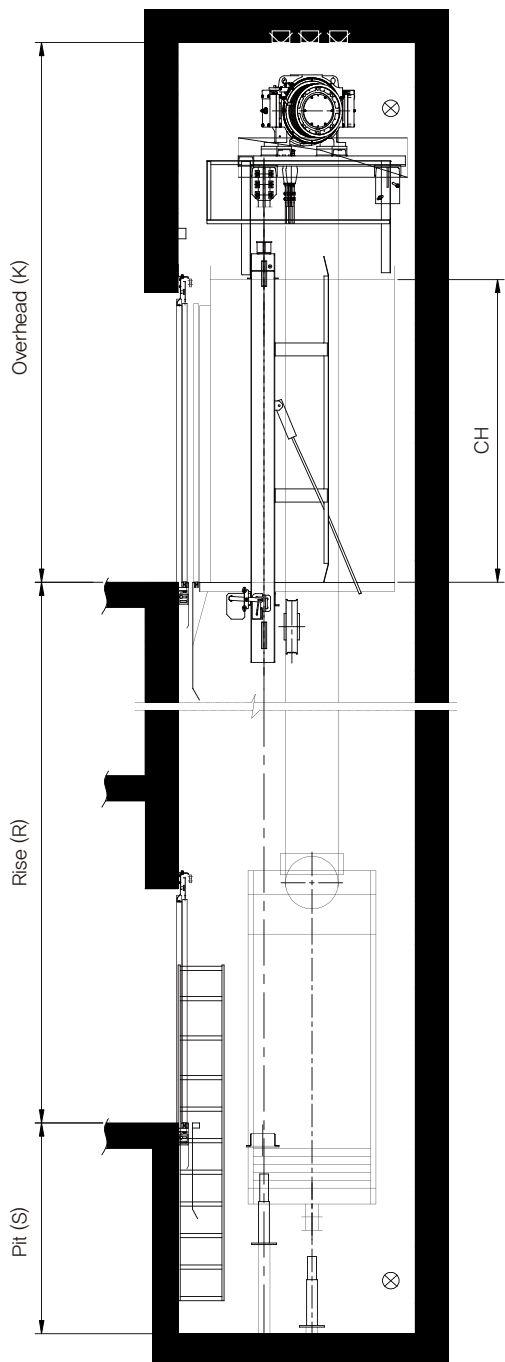


P-007  
Light Blue



P-010  
Blue

# Layout



## OH & Pit Dimension

(Based on CH=2300)

Capacity (kg)	Speed (m/s)	Entrance Height (mm)	Overhead (mm)	Pit (mm)	Type of Buffer
250~450	0.5~1.0	2100	3800	1250	Poly-Urethane Buffer
	1.0		3800	1350	Poly-Urethane Buffer
550~1000	1.5		3950	1500	Oil Buffer
	1.75		4000	1500	Oil Buffer

## Car and Hoistway Dimension

Speed (m/s)	Persons	Load (kg)	Opening Type	OP (mm)	Car size (mm)		Hoistway Size (mm)	
					CW	CD	HW	HD
0.5	6	450	CO	700	1000	1100	1650	1450
	7	550		800	1100	1300	1900	1700
	8	630			1100	1400	1900*	1800
	10	800			1400	1350	2150	1750
	13	1000		900	1600	1400	2350	1800
1.0	3	250	2S	700	800	900	1450	1300
1.5	4	320		700	900	1000	1550	1350
1.75	6	450		800	1000	1100	1650	1450
	7	550			1100	1300	1850	1750
	8	630		900	1100	1400	1850	1850
	10	800			1200	1500	1950	1950
	13	1000			1100	2100	1850	2550

\* In case HW is 1800mm, please contact SIGMA

## Technical Features

● standard ○ option

Features	Function Introduction	
Full Collective Operation	All registered car & hall calls will be answered in the sequence by which the elevator cars approach landings. The travel direction of car will be determined by the first registered car or hall call.	●
Top of Car Inspection	Inspection operation switches, inspection buttons & emergency stop device are provided at car top. When inspection mode starts, only inspection operation is allowed.	●
Emergency Car Light	When the normal lighting power fails, the emergency lighting operates.	●
Separate Car and Hall Call Door Times	The time of door retaining open for answering hall call and car call can be adjusted separately.	●
Load Non Stop	When a car is loaded to a preset percentage of its rated load, it is considered as "full", the car will bypass further hall calls. The hall calls will be registered and will be answered on next trip (single) or by another car (group).	●
Independent Service	When elevator stays at independent service, which has been designed to meet special needs of customers, it will no longer answer calls from out of hoistway but only operate, close & open door under manual control.	●
Overload Warning	When the car is overloaded, the alarm light and buzzer operate. When overloading is indicated, car door will not close and elevator will not operate.	●
Trip Counter	A counter is arranged in elevator control cabinet to count times of elevator operation for the convenience of maintenance.	●
Alarm Bell	For passengers to press alarming button in emergency cases to inform outside in time.	●
Light Curtain	Light curtain is provided as door closing safety device.	●
Intercom	Intercom between surveillance room and machine room and car (including car top/pit) is offered, effective at power failure.	●
Emergency Firemen Operation	When fireman switch is on, the system will cancel all calls, drive elevators to fire-fighting floor directly, opens door to release passengers and stop operation.	●
Emergency Rescue in Controller	When elevator encounters problem, the emergency rescue in controller is operated to rescue the passengers.	●
Parking Operation	Each elevator will have a key switch 'PKS' at a designated landing (e.g., at the lobby). With this feature, a particular car may be commanded by its key switch to the designated landing.	○
Attendant Service	The Attendant Operation feature allows semi-automatic operation with manual control.	○
Relevelling Operation	Stopping errors shall be corrected by relevelling. The size of a possible stopping error depends on the type of drive and the accuracy of the position sensors.	○
Fan Automatic and Light Manual Switch	A manual switch for light power is provided on car operation panel. The fan is controlled by software according to running status of the elevator.	○
Chime in Car	A chime installed on car top will ring when the car approaches landing to remind passengers that they have arrived at the destination floor.	○
CCTV Cable	CCTV cable from car to machine room is offered.	○
Voice Synthesizer	When the car arrives at floor or ready to move, the system will announce about the floor number and running direction by artificial voice.	○
Anti-Nuisance	If there is only one passenger in the car and an excessive number of car calls is registered, such nuisance is detected and all car calls will be canceled, requiring registration of a proper number of calls.	○
Fire Alarm Home Landing	When fire alarm system in a building is activated, the car will return to appointed floor immediately and send such signal to passengers.	○
Card Reader	Passengers with IC card will be permitted to reach appointed floor.	○
BA Interface	By using a contact the elevator signal such as floor, up-down, fault, over-load, fire alarm etc. will be sent to costumed Building Automation room.	○
Elevator Supervisory Panel	Monitor panel will be provided, and the elevator operation situation (running, overload, door opening, fire alarm, fault) will be monitored.	○
Elevator Monitor System with PC	To monitor the elevator operation, including floor, running direction, door opening, overload, fire alarm, fault by PC system.	○
Automatic Emergency Rescue Device	When the power fails suddenly, if the elevator has not arrived at the appointed floor, the ARED device will activate the car to reach nearest floor and open the door; if the car has already arrived at the floor, the door will open by ARED.	○